

REMARKS

Claims 1-10 and 17-25 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejection(s) in view of the amendments and remarks contained herein.

INTERVIEW SUMMARY

The undersigned wishes to express his appreciation to the Examiner for the courtesy of the telephone interview on Nov. 8, 2007. The cited references were discussed briefly, as well as the minor modifications being proposed to the claims. The Examiner explained that a further search would likely be needed, and that she could not give any indication as to the likely allowability of the claims at this point. The undersigned had faxed a "draft" amendment to the Examiner for discussion purposes, and the undersigned explained that he would be filing a formal version of the "draft" amendment. The undersigned reiterated to the Examiner that if the Examiner should note any minor changes to the claims that would bring them immediately into form for allowance, that the undersigned would very much appreciate the chance to discuss any such changes with the Examiner before a final office action was mailed.

REJECTION UNDER 35 U.S.C. § 103

Claims 1, 2, 3, 5, 6, 7, 9 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dai et al (US 2003/0040274) in view of Oshima et al (U.S. Pat. No. 4,567,485). This rejection is respectfully traversed.

Initially, it will be noted that minor amendments have been made to independent claims 1 and 7 to more particularly point out that the composite signal has a known operating point that the method uses to help determine the signal quality of the signal that is transmitted from the output of the second communications station. Similarly, independent claim 7 has been amended to more positively recite that the corrected Eb/No value being extrapolated is for a signal being transmitted from an output of a transponder on said satellite, and that the composite signal has a known, fixed operating point. Independent claim 17 has been amended along lines somewhat similar to claim 1.

Dai et al appears to be directed to a system in which an uplink power control (ULPC) operation is performed at a satellite to compensate for rain induced signal attenuation. The Dai et al system provides the satellite payload with a power control module 54 that performs different measurements using received uplink signals from satellite terminals (STs), and generates feedback data comprising a beacon signal, as well as status packets. The beacon signal and the status packets are used by a ULPC algorithm of each ST that enables the ST to adjust its transmit power to account for the rain fade (i.e., attenuation). Thus, it appears that the satellite requires information from the ST (i.e., ground based terminal) in order to generate the beacon signal, and this variation in the beacon signal is one component that is required by the ST for its ULPC to determine the rain fade, and thus the appropriate correction that needs to be applied to its transmit power to overcome the rain fade. The Examiner will note that this system does not involve the use of any “noise” signal. Nor would the implementation of a

known noise signal appear to provide any improvement or enhancement to the system disclosed in Dai et al.

The Oshima et al reference involves the use of a pilot generator 16 to provide a reference frequency pilot information signal (i.e., PIN signal). The transmission information signals (TXSIG) that are mixed with the PIN signals have a variable gain (Col. 5, lines 67-68). The resulting signal is then prepared for transmission as an electromagnetic wave signal and transmitted up to the satellite, and eventually retransmitted back down to an earth station for processing to determine the rain fade. With the present system and method, there is no need to transmit the composite signal back to a satellite and then from the satellite back down to the terrestrial terminal before processing can be accomplished. The composite signal, with its known operating point, can be directly processed by a computer that also uses the beacon signal. The known operating point of the composite signal, along with information gleaned from the beacon signal, enable the signal quality at the output of the remote satellite transponder to be determined. Thus, it appears that even using the teachings of these two references as the Examiner has combined them, it would still be necessary to transmit the mixed signal back to the remote satellite terminal, and then back down to the terrestrial terminal, before processing can be performed to determine the affect of rain fade on the signal.

The Examiner will also note that there is no suggestion of using the mixed signal disclosed in Oshimi et al to produce a signal with a known operating point, that is then used by a computer, in connection with a beacon signal, to determine the rain induced signal fade affecting a signal transmitted from the satellite. Perhaps most importantly,

there is no suggestion in Oshima et al as to how its teachings could be applied to a system such as that shown in Dai et al, and further modified, such that a noise signal is used to generate a composite signal having a known operating point, that can be analyzed by a computer system along with the beacon signal, to extrapolate the signal quality of a signal leaving an output from a satellite transponder. In summary, these isolated teachings appear to have been combined in hindsight using the present application as a roadmap. For these reasons, reconsideration and withdrawal of this rejection is respectfully requested.

Claim 17 was rejected as being obvious in view of Dai et al/Oshima et al and Wright et al (US6,272,340). In view of the comments concerning Dai et al and Oshima et al, it is believed that this rejection has been rendered moot.

Various combinations of dependent claims stand rejected based on combinations of Dai et al/Oshima et al, and one of more of Nakamura (US 7,130,577), Marko (US 7,136,640) and Fleming III (US 6,212,360). In view of the comments concerning Dai et al and Oshima et al, and the amendments to the independent claims, it is believed that these rejections have been rendered moot.


CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and

favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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